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**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

November 18, 2003

Mr. G. Pete Nanos, Director  
Los Alamos National Laboratory  
P.O. Box 1663, Mail Stop A100  
Los Alamos, New Mexico 87545

Mr. David Gregory, Project Manager  
DOE-OLASO  
528 35<sup>th</sup> Street, Mail Stop A316  
Los Alamos, New Mexico 87544

**SUBJECT: NOTICE OF DEFICIENCY (NOD)  
INVESTIGATION WORK PLAN FOR MATERIAL DISPOSAL  
AREA L (MDA L)  
LOS ALAMOS NATIONAL LABORATORY  
EPA ID# NM0890010515**

Dear Messrs. Nanos and Gregory:

The New Mexico Environment Department (NMED) has completed a preliminary review of the Department of Energy and the Los Alamos National Laboratory's (collectively, the Permittees) document titled *Investigation Work Plan for Material Disposal Area L, Solid Waste Management Unit 54-006, at Technical Area 34 at Los Alamos National Laboratory*, submitted August 31, 2003 and referenced by LA-UR-03-5998.

NMED completed a technical review of the document, in accordance with 20.4.2.200.A(7) NMAC and 20.4.1 NMAC, and has determined that this work plan does not meet NMED's requirements for the investigation of Material Disposal Area L (MDA L). Consequently, NMED is providing this Notice of Deficiency (NOD) for the work plan. NMED's NOD comments are included in Attachment 1. The Permittees must address these comments and re-submit the document within thirty (30) days of receipt of this letter.

NMED did not review Appendices I (Subsurface Vapor-Phase Transport at MDA L: Model Predictions) or J (ITRD Summary Report) for technical adequacy. In addition, NMED does not formally review or comment on Historical Investigation Reports (Appendix B of the MDA L Investigation Work Plan). NMED reviewed Appendix B only as a reference document and to



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determine whether all of the relevant and required sections were included.

If you have any questions regarding these comments, please contact Cheryl Frischkorn at (505) 428-2550 or Carolyn Cooper at (505) 428-2539.

Sincerely,



Sandra Martin  
Acting Chief  
Hazardous Waste Bureau

SYM:caf

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File: Reading and LANL TA-54 (MDA L, 54-006)

**ATTACHMENT 1**  
**MDA L INVESTIGATION WORK PLAN DEFICIENCIES**

**COMMENT 1—GENERAL**

The MDA L Work Plan (Work Plan) does not follow the format of the November 26, 2002 Order (Order) nor does it include explicit requirements specified in the Order.

The Permittees must follow the format and include specific requirements of the Order in the revised Work Plan. If the Permittees have completed certain requirements during prior investigations or believe that certain requirements are not necessary, then the Permittees must provide the rationale for modifying the scope of work from that specified in the Order.

**COMMENT 2—GENERAL**

The Permittees' use of the term "data gaps" defined in Section 4.1 (Data Gaps) does not fulfill the requirements outlined in the Order, dated November 26, 2002. The New Mexico Environment Department (NMED) does not agree that satisfying the "data gaps" defined by the Permittees will allow for the determination of the nature, rate, and extent of contamination at MDA L. NMED requires the acquisition of additional data in order to determine the need for and the scope of future corrective actions.

The Permittees must provide justification for altering the scope of work described in the Order. The justification for modifying the requirements of the Order should be listed following the scope of activities list required by Section XI.B.7 of the Order.

**COMMENT 3—GENERAL**

The Permittees must include the page, table, and figure number when referencing information from previous reports.

**COMMENT 4—GENERAL**

The Work Plan does not propose any sampling of indoor air at any of the various buildings at MDA L. Volatile Organic Compounds (VOCs) and tritium have the potential to accumulate in some of the structures at the site.

The Permittees must propose in the Work Plan procedures to test the indoor air for the presence of VOCs in the structures at MDA L. If the Permittees believe that certain structures need not be monitored for VOCs, then adequate justification must be supplied. NMED recommends that the Permittees also propose monitoring the indoor air for tritium.

**COMMENT 5—GENERAL**

The acronym IWP references the Facility-Wide Installation Work Plan. The Permittees must refer to this document as a work plan.

**COMMENT 6—GENERAL**

The Permittees must include a table or tables with summaries of regulatory criteria and applicable cleanup or screening levels. This information may be included on the analytical data tables or on a separate table.

**COMMENT 7—GENERAL**

The Permittees must drill all borings to a minimum depth of twenty (20) feet below the base of the pits and a minimum of twenty (20) feet below the base of the deepest shafts in a shaft row or field as specified in Section IV.C.e.iii, number 3 of the Order.

The Permittees must advance all borings a minimum of twenty-five (25) feet below detected vapor phase, soil, rock, or ground water contamination as detected by field screening as specified in Section IV.C.e.iii, number 4 of the Order.

The Permittees must revise the Work Plan to include these requirements.

**COMMENT 8—GENERAL**

NMED does not formally review or comment on Historical Investigation Reports. NMED utilizes the Historical Investigation Report for reference purposes only. NMED reviewed Appendix B only to determine whether all of the relevant and required sections were included.

**COMMENT 9—GENERAL**

Samples must be collected every ten (10) feet, in areas of higher permeability (such as interbedded surge beds, pumice deposits, and alluvial deposits found in the Bandelier Tuff) and from the maximum depth in each boring. Higher permeability lithologies and secondary fractures should be targeted as well (for example, rubbly basalt flow tops and bases, Cerro Toledo interval, gravels of the Puye Formation).

**COMMENT 10—GENERAL**

The Permittees must collect QA/QC samples for all media as follows: Collect field duplicates at a rate of ten percent. Collect field blanks at a frequency of one per day. Collect equipment blanks from all sampling apparatus at a frequency of five percent, but no fewer than one per day, for chemical analysis. Collect equipment blanks at a frequency of one per day if disposable sampling equipment is used. The Permittees must modify the scope of work to include these QA/QC samples.

**COMMENT 11—GENERAL**

The Permittee must revise the Work Plan to include plans for extending boreholes to greater depths if field screening indicates the presence of contamination at the bottom interval of any borehole.

**COMMENT 12—GENERAL**

The Permittee must provide a brief description of sample collection, preservation, and preparation methods for laboratory analysis for all sample media.

**COMMENT 13—GENERAL**

The Work Plan does not address the management of Investigation Derived Wastes (IDW).

The Permittees must include a description of all activities related to IDW storage and disposal and include an IDW Management Plan as an appendix to the Work Plan. Revise Appendix A to include "IDW" on the acronym list.

**COMMENT 14—SECTION 1.0: FOOTNOTE**

NMED does not agree with the need to include the disclaimer regarding radioactive waste data in this section or on the title page of the document. NMED maintains that it has the authority to regulate radioactive wastes, other than source, special nuclear and byproduct material as narrowly defined in the Atomic Energy Act of 1954, and to require the monitoring and reporting of radionuclides as necessary to properly regulate non-exempt wastes. The Permittees shall delete this disclaimer.

**COMMENT 15—SECTION 3.2.1: STRATIGRAPHY**

The Permittees must include brief descriptions of the stratigraphy beneath MDA L in Section 3.2.1 of the Work Plan.

Move the text from Appendix K, Section K-1.0 to Section 3.2.1 of the Work Plan.

**COMMENT 16—SECTION 3.2.3: GROUNDWATER**

The Permittees suggest that, to date, data obtained indicate that dry mesas such as Mesita del Bucy show no evidence of perched groundwater beneath the mesa. In a letter dated April 7, 1995, the Permittees state that ground water was encountered at a depth of 592 feet below ground surface at MDA L. The regional aquifer in the area of MDA L is reported to be approximately 930 feet below ground surface.

The Permittees must report all perched groundwater zones and/or wet zones encountered in all boreholes proposed in the investigation for MDA L.

**COMMENT 17—SECTION 3.2.3: GROUNDWATER**

The Permittee must supply to NMED all the groundwater monitoring analytical data that exist for MDA L that have not been previously supplied, including analytical data from regional aquifer wells R-20, R-21, R-22, and R-23. This information should be included in the Historical Investigation Report.

**COMMENT 18—SECTION 4.0: SCOPE OF ACTIVITIES**

The Permittees have not proposed drilling any boreholes that intersect the regional aquifer in the MDA L Work Plan. NMED recognizes that three (3) regional aquifer wells associated with TA-54 have been installed and that the requirement specified in Section IV.C.1.e.iii, number 9 of the Order has been partially fulfilled; however, NMED may require additional monitoring wells to be installed in the regional aquifer, depending on the results of this investigation.

The Permittees shall include in the Work Plan information relevant to MDA L on regional wells associated with TA-54 that have previously been installed. NMED will determine whether these wells are adequate to characterize the extent of ground water contamination associated with TA-54.

**COMMENT 19—SECTION 4.1.2: NATURE AND EXTENT OF TRITIUM VAPOR PLUME**

The Permittees must provide evidence to support the statement, "the data from the deep angled borehole indicates that the vertical extent of the tritium contamination is bounded."

**COMMENT 20—SECTION 4.1.6: INFORMATION ON VAPOR-PHASE VOC PLUME STABILITY**

NMED does not agree with the Permittees' claim that the spatial extent, particularly the vertical extent, of the VOC plume has been defined.

The Permittees must provide to NMED, on a CD and in hard copy, all pore-gas data collected from borings 54-01015 and 54-01016 to date. The data must be provided in tables and must include the date of sample collection, and the method/instrument used to obtain the sample (e.g., B & K, SUMMA™ canister), depth of sample collected, QA/QC sample results, and any other information related to vapor monitoring.

**COMMENT 21—SECTION 4.2.1: PROPOSED DRILLING AND SAMPLING TO ADDRESS DATA GAP 1**

Section IV.C.1.e.iii, number 2 of the Order requires that a minimum of one boring per every 60 feet shall be advanced in a shaft row. The Permittees' Work Plan does not propose any boring in the area of the eastern shaft field (shafts 1-28) in the Work Plan.

The Permittees must revise the Work Plan to include a proposal for drilling additional borings in the area of the eastern shaft field to meet the requirements for completing subsurface explorations in the shaft areas. Provide sufficient justification if the Permittees consider the borings unnecessary.

**COMMENT 22—SECTION 4.2.1: PROPOSED DRILLING AND SAMPLING TO ADDRESS DATA GAP 1**

Borings were not proposed to be drilled to investigate subsurface conditions beneath Pit A. A minimum of one boring shall be advanced directly adjacent to the locations of the down-slope end of each disposal pit and one boring at the low elevation point of each disposal pit, as specified in IV.C.1.e.iii, number 1 of the Order.

The Permittees must revise the Work Plan to include the drilling of borings in the area of Pit A. Again, provide sufficient justification if the Permittees consider the borings unnecessary.

**COMMENT 23—SECTION 4.2.1: PROPOSED DRILLING AND SAMPLING TO ADDRESS DATA GAP 1**

Boreholes 54-01012, 54-01013, and 54-01014 were drilled at an angle beneath Impoundments B, C, and D, respectively. Boreholes 54-01009, 54-01010, and 54-01011 were drilled at an angle beneath Pit A. Subsurface data from these boreholes gathered during the Phase I RCRA Facility Investigation (RFI) indicate that a release of metals has occurred beneath the pits, shafts, and impoundments at MDA L. Boreholes 54-01007 through 54-01014 have been backfilled. The Permittees have proposed drilling only two boreholes to investigate metals and other contamination in the area of the three impoundments and the pit.

The Permittees must propose an adequate number of boreholes in these areas to completely establish the vertical and horizontal extent of all contaminants. The Permittees must state in the Work Plan that each borehole will be drilled to greater depths if field screening detects evidence of contamination.

**COMMENT 24—SECTION 4.2.1: PROPOSED DRILLING AND SAMPLING TO ADDRESS DATA GAP 1**

The Work Plan specifies that samples will be collected approximately every thirty (30) linear feet down the proposed boreholes.

The Permittees must include in the Work Plan procedures for collecting soil/rock samples at ten (10) foot intervals from each borehole drilled at MDA L. In addition, soil and rock samples must be collected in areas of higher permeability (such as surge beds, pumice deposits, and alluvial deposits found in the Bandelier Tuff) as well as secondary fractures and at the maximum depth of each boring.

**COMMENT 25—SECTION 4.2.2: PROPOSED DRILLING AND SAMPLING TO ADDRESS DATA GAP 2**

The Permittees have defined neither the vertical nor horizontal extent of the tritium plume. Tritium was detected in the 502-503 foot interval sample collected from Borehole 54-01015 and in the 594.1 to 596.8 foot interval sample collected from Borehole 54-01016. Both these samples are located in the Cerros del Rio Basalts. Tritium was also detected at the bottom of boreholes 54-01010, 54-01011, 54-01013, and 54-01014 at 59, 50, 50, and 50 feet below ground surface, respectively.

The Permittees should voluntarily investigate not only the lateral extent of tritium contamination, but also the horizontal extent. If the proposed sampling activities are not adequate to define the tritium plume at MDA L, then the Permittees should extend investigation activities to include the sampling of additional boreholes and/or collecting samples at greater depths. The Permittees should revise the Work Plan to state that additional investigative activities will be completed if those currently proposed in the Work Plan do not adequately define the tritium plume boundaries. The Permittees must document any activities performed which deviate from those outlined in the Work Plan.

This section states that RRES-RS has concluded that tritium contamination is best characterized in low moisture content environments by using sorbent materials to extract and retain in situ subsurface water samples from pore gas. Clarify this section to indicate that pore gas samples, and not core, will be collected for tritium analyses. In addition, the Permittees should consider using the low-level electrolytic enrichment method for analysis of tritium in water.

**COMMENT 26—SECTION 4.2.3: PROPOSED SAMPLING TO ADDRESS DATA GAP 3**

The Permittees mention that because of their low solubility in water and because inventory records do not indicate the presence of dioxins and furans in the disposed wastes, dioxins and furans will not be included in the analytical suite for tuff samples. The Permittees have disposed of over 70,000 gallons of "unspecified wastes" at MDA L, some of which may or may not have been burned. Appendix B, Section B-1.1.3 states that there are no logbook entries for the wastes disposed prior to 1974/1975, and there are no logbook entries for the treatment in Impoundments C and D. In addition, dioxins were detected in storm water samples collected from MDA L in 2001.

The Permittees must revise the Work Plan to state that laboratory-analyzed samples of rock, sediment, and soil will also be analyzed for dioxins, furans, polychlorinated biphenyls (PCBs), and semi-volatile organic compounds (SVOCs), as specified in Section IV.C.1.e.iv of the Order.

**COMMENT 27—SECTION 4.2.3: PROPOSED SAMPLING TO ADDRESS DATA GAP 3**

The Permittees state in this section, "Of the tuff samples collected from boreholes A through C, at least three samples will be screened for HE." Figures 21 through 23 indicate that three (3) samples per boreholes A through C will be field screened for HE compounds, and Figure 24 indicates that two (2) samples from borehole D will be field screened for HE.

The Permittees must clarify the proposed HE field screening activities.

**COMMENT 28—SECTION 4.2.4: PROPOSED SAMPLING TO ADDRESS DATA GAP 5**

The Permittees must include a description of all activities that will be performed if perched groundwater is encountered in proposed borehole D or in any other proposed borehole at the site. Include proposed well construction designs, sample analytical suites, and plans for advancing additional boreholes.

**COMMENT 29—SECTION 4.2.6: PROPOSED SAMPLING TO ADDRESS DATA GAP 6**

The Permittee must ensure that the vapor-phase monitoring and sampling activities at MDA L are consistent with Section IX.B.2.g of the Order, and that proper QA/QC protocols are followed.



**COMMENT 30—SECTION 4.2.7: PROPOSED SAMPLING TO ADDRESS DATA GAP 7**

The Permittees propose to collect one (1) sediment sample at the interface of the alluvium and bedrock in Cañada del Buey to be submitted to an off-site contract laboratory for analysis. The activities proposed regarding canyon alluvium and sediments are insufficient because the Permittees fail to address field screening, sampling intervals, and what measures will be taken by the Permittees if field screened samples display evidence of contamination.

The Permittees must revise Section 4.2.7 of the Work Plan to incorporate the activities specified in Section IV.C.1.e.v, numbers 3-4 of the Order which include advancing soil borings in both Cañada del Buey and Pajarito Canyon, collection of alluvial and bedrock samples at locations approved by NMED, and analysis of samples. If the Permittees believe that this requirement is not necessary, then they must provide sufficient rationale to NMED. In addition, the Permittees must illustrate the location where the samples will be collected in Cañada del Buey on a map.

**COMMENT 31—SECTION 5.0: INVESTIGATION METHODS**

The Permittees must describe all methods for conducting the proposed activities during this investigation and they must provide descriptions of investigation, sampling, and analytical methods and procedures anticipated or employed in all documents submitted to NMED. The Work Plan only lists Standard Operating Procedures (SOPs) to be followed during the investigation and is not acceptable. The Work Plan may include a reference to Los Alamos National Laboratory's (LANL) web site for electronic access to SOPs.

**COMMENT 32—SECTION 5.0: INVESTIGATION METHODS**

The Work Plan does not describe how each of the additional proposed boreholes will be characterized using geophysical logging techniques, as specified in Section IV.C.1.e.iii, number 6 of the Order.

The Permittees must revise the Work Plan to include a description of the geophysical logging techniques that will be utilized during the investigation.

**COMMENT 33—SECTION 5.0: INVESTIGATION METHODS**

The Permittees must revise the Work Plan to state that the samples obtained from each boring that exhibit the field screening evidence of contamination will be sent to the laboratory for analysis.

**COMMENT 34—SECTION 5.1.1: DRILLING PROTOCOL**

This section states that the total depths of boreholes may increase if elevated field screening is detected. Investigation must continue to 25 feet below the last field screening detection of contaminants, because field screening is not a precise method for detecting the presence of contamination.

The Permittees must include a description of all field screening activities and methods. The methods for Volatile Organic Compound (VOC) screening must be included.

**COMMENT 35—SECTION 5.1.1: DRILLING PROTOCOL**

The Permittees must revise this section of the Work Plan to state that a detailed log of each boring will be maintained and the results of all field screening will be included in the corresponding boring log, as specified in Section IV.C.1.c.iv, number 4 of the Order.

**COMMENT 36—SECTION 5.1.2: COLLECTION OF CORE SAMPLES**

The Permittees do not describe in the Work Plan how field screening will be accomplished and what instrumentation will be utilized.

The Permittees must revise the Work Plan to include the procedures for screening all (soil, rock, core, sediments) samples in the field. The specifics regarding field screening instruments must also be included.

**COMMENT 37—SECTION 5.1.4: BOREHOLE COMPLETION**

The Permittees state that only borehole C will be completed as a vapor-monitoring borehole.

As specified in Section IV.C.1.e.iii, number 8 of the Order, the Permittees shall complete each boring as a vapor monitoring well, unless otherwise approved by NMED based on justification provided by the Permittees.

**COMMENT 38—SECTION 5.1.4: BOREHOLE COMPLETION**

The Permittees have not supplied a general design for vapor monitoring well construction in the Work Plan.

The Permittees must include in the Work Plan a general design for vapor monitoring well construction for approval prior to the start of subsurface exploration at MDA L, as specified in Section IV.C.1.e.iii, number 7 of the Order.

**COMMENT 39—SECTION 5.2: METHODS FOR DRILLING AND SAMPLING BOREHOLE D**

The Permittees have not proposed completing an intermediate boring and/or monitoring well at MDA L.

To meet the requirements of the Order if groundwater is encountered, the Permittees must complete proposed borehole D as a monitoring well; however, vapor and groundwater samples must be collected from the borehole prior to well construction. A monitoring well design plan must be submitted to NMED for approval prior to construction of the intermediate well.

**COMMENT 40—SECTION 5.2: METHODS FOR DRILLING AND SAMPLING BOREHOLE D**

Proposed borehole D is located on the periphery of MDA L. The Permittees must re-locate proposed borehole D to a more centralized location that is closer to the potential sources of contamination at MDA L. NMED recommends that the Permittees locate proposed borehole D approximately 35 to 40 feet east/southeast of proposed Borehole B.

**COMMENT 41—SECTION 5.2: METHODS FOR DRILLING AND SAMPLING BOREHOLE D**

The Permittees do not intend to sample proposed borehole D for VOCs or tritium. In addition, the Permittees propose to collect only two core samples for contaminant analyses and field screening from this 700-foot borehole while collecting moisture content and matrix potential samples at a more frequent rate.

As the intent of the investigation is to define the nature and extent of contamination, the Permittees must explain why samples will not be collected for VOC and tritium field screening and laboratory analysis. In addition, the Permittees must propose to collect samples for contaminant analyses and field screening at more frequent intervals. (See Comment 9)

**COMMENT 42—SECTION 5.2.1: DRILLING PROTOCOL**

The Permittees state that upon refusal with the hollow stem auger when drilling proposed borehole D, air rotary drilling will be employed to complete the borehole to 700 feet below ground surface.

The Permittees must state in the Work Plan how proposed borehole D will be purged before any samples are collected and that mud will not be used during drilling. When air is used, the hole must be purged and straddle packers should be used to sample vapor from discrete intervals.

**COMMENT 43—SECTION 5.2.3: COLLECTION OF GEOTECHNICAL AND HYDROGEOLOGICAL SAMPLES**

Samples from proposed borehole D will be collected for testing of geotechnical and hydrogeological properties. The Permittees propose in Section 4.2.5 that samples collected from proposed borehole D will be used to estimate saturated and unsaturated hydraulic conductivity.

Estimates of hydraulic conductivities are not adequate. As specified in Section IV.C.1.c.iv, number 5 of the Order, the Permittees must collect a minimum of three (3) cores from selected borings at depths approved by the Department to be tested for permeability using American Standards of Testing Materials (ASTM) Methods.

**COMMENT 44—SECTION 5.3: COLLECTION OF PAIRED FRACTURE SAMPLES**

This Permittees state in this section that detailed descriptions will be provided and photographs will be taken for each fracture sample. The sampling described in this section does not take into account fracture density, fracture orientation, fracture frequency, or fracture attributes in relation to depth and stratigraphy.

The Permittees must describe in detail all procedures and techniques that will be employed to sample and describe all fracture characteristics that may affect contaminant transport. The Permittees must also explain the logic behind their current fracture sampling scheme.

**COMMENT 45—SECTION 6.6: MONITORING AND SAMPLING PROGRAM**

The purpose of this Work Plan is to determine the nature, rate, and extent of contaminants at MDA L.

The Permittees must describe in this section the monitoring currently being conducted at MDA L. NMED does not approve of the Permittees' proposed interim monitoring program described in this section. The Permittees must continue to monitor as specified in Module VIII of the Laboratory's Hazardous Waste Permit until an alternate long-term monitoring program is approved by NMED, after submittal of the MDA L Investigation Report. It is not appropriate to include plans for long-term monitoring at this time. A permit modification must be completed before any change to the current monitoring plan for MDA L can be made.

**COMMENT 46—FIGURE 15: NORTH-SOUTH CROSS SECTION OF VOC PLUME**

For this figure to be more meaningful, the Permittees must show the zero (0) concentration contour line. To accomplish this, the Permittees must determine the depth of contamination in each monitoring borehole. If the Permittees do not know the depths of the "clean" or zero (0) concentration intervals in each monitoring borehole, then this data must be collected.

The Permittees must revise the Work Plan to include procedures to determine the limits of contamination in each existing borehole, as well as in the proposed boreholes. If this information has been collected for the existing boreholes, then the Permittees must supply this information to NMED.

**COMMENT 47—FIGURES 21 – 24: PROFILE OF BOREHOLES A-D**

The Permittees must revise these figures to accommodate changes in sample collection intervals and potential changes in the waste unit dimensions.

**COMMENT 48—FIGURE 26: PROPOSED PORE-GAS MONITORING BOREHOLES AT MDA L.**

Delete this figure. NMED does not approve of the Permittees' proposed interim monitoring program. (see Comment 45)

**COMMENT 49—TABLE 2: PROPOSED BOREHOLE LOCATIONS AND ANALYTICAL SUITES FOR MDA L.**

The Permittees must revise this table to include required changes in borehole locations, sampling intervals, analytical suites, and sampling rationale.

**COMMENT 50—TABLE 3: PROPOSED MONITORING BOREHOLES FOR LONG-TERM MONITORING NETWORK**

The Permittees must remove this table from the Work Plan. (See Comment 45)

**COMMENT 51—APPENDIX B: HISTORICAL INVESTIGATION REPORT**

NMED does not formally review or comment on Historical Investigation Reports. NMED utilizes the Historical Investigation Report for reference purposes only. NMED reviewed Appendix B only to determine whether all of the relevant and required sections were included.

**COMMENT 52—APPENDIX B: SECTION B-1.1**

Although the Permittees have described the dimensions of the disposal units at MDA L, the Permittees have not established the areal extent of the disposal units nor have the Permittees confirmed, through a geophysical survey, the dimensions, total depth, base profile, low elevation point, or down-slope end of each pit and shaft. Without this location information, the Permittees may penetrate a disposal unit during drilling and/or exploration activities.

The Permittees must determine the dimensions and areal extent of all the disposal units at MDA L using either accurate historical survey data or by conducting a geophysical survey to determine the exact locations of the disposal units, as specified in Section IV.C.1.e.ii of the Order. Revise any figure that may change after the survey. If the Permittees have previously conducted a survey of MDA L, then the Permittees must include the information collected during that survey in the revision of Historical Investigation Report appendix to the Work Plan as specified in Section IV.C.1.e.i of the Order.

**COMMENT 53—APPENDIX B: SECTION B-1.1**

Correct RCRA "field" investigation to RCRA "facility" investigation.

**COMMENT 54—APPENDIX B: TABLES B-10 THROUGH B-13 & TABLES B-15 AND B-16**

The Permittees must remove these unnecessary tables from the document.

**COMMENT 55—APPENDIX C: QUALITY ASSURANCE / QUALITY CONTROL PROCESS**

The Permittees must delete this appendix and incorporate the text into Appendix B, Section B-4.0, Data Interpretation and Identification of Data Gaps.

**COMMENT 53—APPENDIX E: STATISTICAL RESULTS FOR CHEMICAL ANALYTICAL DATA**

The Permittees must incorporate the information contained in this appendix into Appendix B (Historical Investigation Report).

**COMMENT 55—APPENDIX F: REGULATORY HISTORY AND DOCUMENTS**

The Permittees shall remove this unnecessary appendix from the Work Plan.

**COMMENT 56—APPENDIX H: BOREHOLE LOGS**

The Permittees must supply the boring logs for all the pore-gas monitoring boreholes not supplied to NMED including: 54-02001, 54-02002, 54-02012, 54-02013, 54-02014, 54-02015, 54-02016, 54-02020, 54-02021, 54-02022, 54-02023, 54-02024, 54-02025, 54-02026, 54-02027, 54-02028, 54-02029, 54-02030, 54-02031, 54-02034, 54-02087, 54-02088, and, 54-02089. Monitoring well (vapor or groundwater) construction diagrams must also be provided for each well.